

**OPTICAL ELEMENT AND
METHOD FOR FORMING DOMAIN INVERSION REGIONS**

ABSTRACT OF THE DISCLOSURE

There is provided a stable optical element having a fine, uniform, and wide-ranging domain inversion structure in a ferroelectric crystal. This includes a plurality of domain inversions (101) formed on an $\text{MgO}:\text{LiNbO}_3$ substrate (100), and a groove (102) formed on the substrate surface between the domain inversions (101). The depth T' of substantially all of the domain inversions (101) satisfies the relation $T' < T$ with respect to the substrate thickness T .